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ABSTRACT

This book was written to make it easier for classroom teachers to teach students the skills they need to successfully conduct, analyze, and report an experiment and to carry out independent research; it also presents strategies for holding successful science competitions. Part 1 contains field-tested teaching strategies for developing student research skills. Part 2 includes more sophisticated data analysis, experiment design, and reporting. These skills include using library resources, applying descriptive and inferential statistics, designing complex experiments, and writing formal papers. Management strategies are suggested in part 3 to help the teacher integrate research into the curriculum and promote strong school-community ties. And finally, part 4 presents options for maximizing student success and developing positive attitudes about science competitions; this section includes ideas for making effective oral presentations and displays, preparing judges, and selecting competitive events. (PR)

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